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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,165	11/06/2001	Stephen Sherman	60027.0045US01/BS01195	6370
23552	7590	10/20/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SING, SIMON P	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/992,165	Applicant(s) SHERMAN ET AL.	
	Examiner Simon Sing	Art Unit 2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-18,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-18,20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-6, 9, 10, 12-17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Nakamura et al. US 6,553,221 and further in view of Skog US 5,930,701.

1.1 Regarding claim 1, Barvesten discloses a method of forwarding caller identifications, obtained during operative unavailability, to a mobile station 10 when it becomes available in figures 1-3. Barvesten teaches:

receiving a call from a calling party directed to the mobile station 10 (column 5, lines 20-23, 59-62);

obtaining caller identification information on the calling party from a caller name data based when a caller is from a wired telephone 11 (column 5, lines 30-43; column 6, lines 28-34) (an examiner's notice is served that if the call is originated from a wireless phone, such as a cellular phone, the caller identification is obtained from a HLR, because it is where subscriber (caller) identification information are stored);

determining whether the mobile station 10 is reachable (registered) (column 4, lines 1-20; column 5, lines 27-30, 63-66);

if the mobile station 10 is not reachable, stored the caller identification in a mobile switching center (MSC) 16 (column 5, lines 38-43; column 6, lines 5-10), and detecting the registration status of the mobile station 10 whether it has become available (column 6, lines 51-53); and

if the mobile station 10 becomes available, forwarding the caller identification, obtained during the operative unavailability, in a message (it is inherent that the MSC 16 determines if the mobile station 10 is able to receive the message, such as if mobile station 10 is a subscriber to its service) to the mobile station 10 to be stored in a display list (missed call log) for display (column 5, lines 50-54; column 6, lines 51-63; column 7, lines 5-10).

Barvesten teaches detecting the registration status (availability) of mobile station 10, but fails to specifically teach checking the status periodically. Barvesten also teaches storing caller identification in a MSC (a MSC inherently comprises, or connects to, a HLR), but fails to explicitly teach storing caller identification in the HLR, and storing the caller identification in a call log for missed calls, including calls not answered when the mobile station 10 is available.

However, Nakamura discloses an incoming call notification apparatus in figure 1. Nakamura teaches receiving an incoming call directed to a mobile station 20a; determining whether the mobile station 20a is operable; storing caller information; checking the availability status periodically; and if the mobile station 20a becomes

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available, forwarding the stored caller information to mobile station 20a for storage in a memory (missed call log) and for display (Abstract; column 2, lines 56-66; column 3, lines 15-51; column 5, lines 37-40; figure 7, step 11). Nakamura further teaches storing call identification in a memory (missed call log) for calls not answered when mobile station 20a is available (column 1, lines 14-21).

In addition, Skog discloses a system for providing caller ID, obtained while a mobile terminal 30 is unreachable (not registered), to the mobile station 30 in a mobile communications network (Abstract; column 2, lines 15-19). The communications network comprises. Skog teaches obtaining the caller ID and storing the caller ID is a memory 410 of HLR 50 (figure 4; column 6, lines 57-67; column 7, lines 1-4) when the mobile station 30 is unreachable, and once the mobile station 30 becomes reachable, forwarding the stored caller ID from the HLR 50 to the mobile station 30 (column 7, lines 48-67; column 8, lines 1-3) for storage (column 8, lines 12-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Barvesten's reference with the teachings of Nakamura and Skog, so that caller identifications obtained during the operative unavailability would have been temporarily stored in a HLR and forwarded to a mobile station, when it had become available, for storage in call log for call not answered, because whether storing the caller identification in MSC or HLR would have been a matter of design choice, and similarly whether storing caller identifications of calls missed, due to operative unavailability in a separate call log, or with a call log which

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stored calls not answered when the mobile station was available would also have been a design choice since all were calls missed.

1.2 Regarding claim 3, Barvesten teaches displaying the caller identification with a question regarding whether a return call is desired on the mobile station 10 (column 6, lines 58-63).

1.3 Regarding claim 4, Barvesten teaches displaying callers' information of missed calls on the mobile station 10 (column 6, lines 58-63).

1.4 Regarding claim 5, Barvesten teaches that caller's ID includes telephone number and name (column 6, lines 58-63).

1.5 Regarding claim 6, Barvesten teaches that a caller's information includes data and time (column 6, lines 42-49).

1.6 Regarding claim 9, Barvesten teaches obtaining a caller's name from a calling name database (column 5, lines 33-43; column 6, lines 28-34).

1.7 Regarding claim 10, as discussed in claim 1, an examiner's notice is served that caller identification is obtained from a HLR if a call is originated from a wireless phone

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(see column 4, lines 31-51 of Foti US 5, 974,309, or column 3, lines 23-32 of Granberg US 6,101,382).

1.8 Regarding claim 12, Barvesten teaches determining whether the mobile station 10 is re-reregistered to receive call (column 5, lines 45-47; column 6, lines 51-53).

1.9 Regarding claim 13, Barvesten teaches querying a home location register (HLR) for information indicating that the mobile station 10 is registered to receive calls (column 4, lines 1-20).

1.10 Regarding claim 14, Barvesten discloses a method of forwarding caller identifications, obtained during operative unavailability, to a mobile station 10 when it becomes available in figures 1-3. Barvesten teaches:

receiving a call from a calling party directed to the mobile station 10 (column 5, lines 20-23, 59-62);

obtaining caller identification information on the calling party from a caller name data based when a caller is from a wired telephone 11 (column 5, lines 30-43; column 6, lines 28-34) (an examiner's notice is served that if the call is originated from a wireless phone, such as a cellular phone, the caller identification is obtained from a HLR, because it is where subscriber (caller) identification information are stored);
querying a home location register (HLR) for information indicating that the mobile station 10 is registered to receive calls (column 4, lines 1-20; column 5, lines 20-30, 63-66);

if the mobile station 10 is not reachable, stored the caller identification in a mobile switching center (MSC) 16 (column 5, lines 38-43; column 6, lines 5-10), and detecting the registration status of the mobile station 10 whether it has become available (column 6, lines 51-53); and

if the mobile station 10 becomes available, forwarding the caller identification, obtained during the operative unavailability, in a message (it is inherent that the MSC 16 determines if the mobile station 10 is able to receive the message, such as if mobile station 10 is a subscriber to its service) to the mobile station 10 to be stored in a display list (missed call log) for display (column 5, lines 50-54; column 6, lines 51-63; column 7, lines 5-10).

Barvesten teaches detecting the registration status (availability) of mobile station 10, but fails to specifically teach checking the status periodically. Barvesten also teaches storing caller identification in a MSC (a MSC inherently comprises, or connects to, a HLR), but fails to explicitly teach storing caller identification in the HLR, and storing the caller identification in a call log for missed calls, including calls not answered when the mobile station 10 is available.

However, Nakamura discloses an incoming call notification apparatus in figure 1. Nakamura teaches receiving an incoming call directed to a mobile station 20a; determining whether the mobile station 20a is operable; storing caller information; checking the availability status periodically; and if the mobile station 20a becomes available, forwarding the stored caller information to mobile station 20a for storage in a memory (missed call log) and for display (Abstract; column 2, lines 56-66; column 3,

lines 15-51; column 5, lines 37-40; figure 7, step 11). Nakamura further teaches storing call identification in a memory (missed call log) for calls not answered when mobile station 20a is available (column 1, lines 14-21).

In addition, Skog discloses a system for providing caller ID, obtained while a mobile terminal 30 is unreachable (not registered), to the mobile station 30 in a mobile communications network (Abstract; column 2, lines 15-19). The communications network comprises. Skog teaches obtaining the caller ID and storing the caller ID is a memory 410 of HLR 50 (figure 4; column 6, lines 57-67; column 7, lines 1-4) when the mobile station 30 is unreachable, and once the mobile station 30 becomes reachable, forwarding the stored caller ID from the HLR 50 to the mobile station 30 (column 7, lines 48-67; column 8, lines 1-3) for storage (column 8, lines 12-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Barvesten's reference with the teachings of Nakamura and Skog, so that caller identifications obtained during the operative unavailability would have been temporarily stored in a HLR and forwarded to a mobile station, when it had become available, for storage in call log for call not answered, because whether storing the caller identification in MSC or HLR would have been a matter of design choice, and similarly whether storing caller identifications of calls missed, due to operative unavailability in a separate call log, or with a call log which stored calls not answered when the mobile station was available would also have been a design choice, since all were calls missed.

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1.11 Regarding claim 15, Barvesten teaches determining whether mobile station 30 is unavailable or available to receive a call due to power on/off and within/without a server area (column 4, lines 30-34; column 6, lines 51-53).

1.12 Regarding claim 16, Barvesten teaches querying a home location register (HLR) for information indicating that the mobile station 10 is registered to receive calls (column 4, lines 1-20).

1.13 Regarding claim 17, Barvesten discloses a system of forwarding caller identifications, obtained during operative unavailability, to a mobile station 10 when it becomes available in figures 1-3, comprising:

- a wireless switch (mobile switching center or MSC 16) operative to:

- receive a call from a calling party directed to the mobile station 10 (column 5, lines 20-23, 59-62);

- obtain caller identification information on the calling party from a caller name data based when a caller is from a wired telephone 11 (column 5, lines 30-43; column 6, lines 28-34) (an examiner's notice is served that if the call is originated from a wireless phone, such as a cellular phone, the caller identification is obtained from a HLR, because it is where subscriber (caller) identification information are stored);

- determine whether the mobile station 10 is reachable (registered) (column 4, lines 1-20; column 5, lines 27-30, 63-66);

store the caller identification in a temporary storage of mobile switching center (MSC) 16 if the mobile station 10 is not reachable (column 5, lines 38-43; column 6, lines 5-10); and

forward the caller identification stored in the temporary storage to the mobile station 10 in a message (it is inherent that the MSC 16 determines if the mobile station 10 is able to receive the message, such as if mobile station 10 is a subscriber to its service) to the mobile station 10 to be stored in a display list (missed call log) for display if the mobile station 10 becomes available (column 5, lines 50-54; column 6, lines 51-63; column 7, lines 5-10).

Barvesten teaches detecting the registration status (availability) of mobile station 10, but fails to specifically teach checking the status periodically. Barvesten also teaches storing caller identification in a MSC (a MSC inherently comprises, or connects to, a HLR), but fails to explicitly teach storing caller identification in the HLR, and storing the caller identification in a call log for missed calls, including calls not answered when the mobile station 10 is available.

However, Nakamura discloses an incoming call notification apparatus in figure 1. Nakamura teaches receiving an incoming call directed to a mobile station 20a; determining whether the mobile station 20a is operable; storing caller information; checking the availability status periodically; and if the mobile station 20a becomes available, forwarding the stored caller information to mobile station 20a for storage in a memory (missed call log) and for display (Abstract; column 2, lines 56-66; column 3, lines 15-51; column 5, lines 37-40; figure 7, step 11). Nakamura further teaches storing

call identification in a memory (missed call log) for calls not answered when mobile station 20a is available (column 1, lines 14-21).

In addition, Skog discloses a system for providing caller ID, obtained while a mobile terminal 30 is unreachable (not registered), to the mobile station 30 in a mobile communications network (Abstract; column 2, lines 15-19). The communications network comprises. Skog teaches obtaining the caller ID and storing the caller ID is a memory 410 of HLR 50 (figure 4; column 6, lines 57-67; column 7, lines 1-4) when the mobile station 30 is unreachable, and once the mobile station 30 becomes reachable, forwarding the stored caller ID from the HLR 50 to the mobile station 30 (column 7, lines 48-67; column 8, lines 1-3) for storage (column 8, lines 12-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Barvesten's reference with the teachings of Nakamura and Skog, so that caller identifications obtained during the operative unavailability would have been temporarily stored in a HLR and forwarded to a mobile station, when it had become available, for storage in call log for call not answered, because whether storing the caller identification in MSC or HLR would have been a matter of design choice, and similarly whether storing caller identifications of calls missed, due to operative unavailability in a separate call log, or with a call log which stored calls not answered when the mobile station was available would also have been a design choice since all were calls missed.

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1.14 Regarding claim 20, Barvesten teaches that caller's ID includes telephone number and name (column 6, lines 58-63).

1.15 Regarding claim 21, Barvesten teaches that a caller's information includes data an time (column 6, lines 42-49).

2. Claims 7, 8, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Nakamura et al. US 6,553,221 and further in view of Skog US 5,930,701 and further in view of Farris US 5,805,997.

2.1 Regarding claims 7, 11 and 18, the modified Barvesten reference, teaches storing caller identifications in a missed call log, but fails to teach transmitting IS-41 location request from a wireless switch to a home location register (HLR).

However, Farris discloses method for using a cellular digital packet data in a cellular network. Farris teaches that IS-41 protocol is used for communications between a HLR and a mobile switching center, or MSC (column 7, lines 54-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Barvesten's reference with the teaching of Farris, so that a IS-41 location request would have been transmitted from a MSC to a HLR to determine the availability of a mobile station, because IS-41 was a standard protocol used in North America cellular system for pre-call validation.

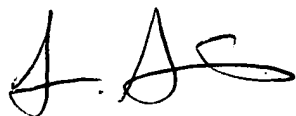
2.2 Regarding claim 8, Barvesten teaches determining whether mobile station 30 is unavailable or available to receive a call due to power on/off and within/without a server area (column 4, lines 30-34; column 6, lines 51-53).

Response to Arguments

3. Applicant's arguments with respect to claim s have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is 571-272-7545. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.



S. Sing

09/06/2005



FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600